Large-Scale Emitting Chains in the Global Solar Magnetosphere

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A novel phenomenon of the large-scale solar activity - relatively weak extended emitting chains and threads with characteristic sizes comparable with the solar disk diameter - has been detected recently on the modified heliograms in the microwave (Nobeyama Radioheliograph), soft X-ray (Yohkoh/SXT), EUV (SOHO/EIT, TRACE), and other ranges. Reality of the chains is confirmed particularly by: (a) their similarity on the various spacecraft and ground-based heliograms at different wavelengths; (b) coincidence of the chains with other large-scale structures (for, example, with boundaries of some coronal holes). The long-living chains exist, keep their general form and rotate together with other features on the disk during many days. The transient chains with a typical time scales from several hours to one day display close association with coronal mass ejections (CMEs). It is suggested that at least a part of the chains lights up separators or quasi-separatrix layers between different interacting large-scale magnetic flux systems in the global solar magnetosphere and can outline large-scale coronal structures involved in the CME process.